No. 7600048

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Stoneville Pedigreed Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Stoneville 731N'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 11th day of April in the year of our Lord one thousand nine hundred and seventy-seven

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY	
Stoneville 731N	Cotton	PVPO NUMBER 7600048	
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 3·1·76	TIME 10:30 A.M.
Gossypium Hirsutum, L.	Malvaceae	FEE RECEIVED $750.00	CHARGES
	5. DATE OF DETERMINATION February, 1969		

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
Stoneville Pedigreed Seed Company	P. O. Box 167 Stoneville, Mississippi 38776	601-686-2334

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Mississippi	Sept. 1922

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Dr. G. R. Walker, President
Stoneville Pedigreed Seed Company
P. O. Box 167
Stoneville, Mississippi 38776

Dr. C. W. Manning, Director of Research
Stoneville Pedigreed Seed Company
P. O. Box 213
Stoneville, Mississippi 38776

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [X] 12B. Exhibit B, Botanical Description of the Variety
- [X] 12C. Exhibit C, Objective Description of the Variety
- [X] 12D. Exhibit D, Data Indicative of Novelty
- [X] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [X] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? Two

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

February 24, 1976
(DATE)

C W Manning
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

00001

EXHIBIT A

Origin and Breeding History of the Variety

Stoneville 731N originated from a cross between Stoneville 7A and a nectariless line identified as 76 # 4. Pollen from 76 # 4 was obtained in 1961 from Dr. James Meyer who was then at the Delta Branch Experiment Station, Stoneville, Mississippi. The pedigree method of breeding was used to develop Stoneville 731N and no additional crosses were made.

Beginning with the F_2 generation individual plant selections were made through each subsequent generation. These selections were made on the basis of standard field and laboratory evaluations without the benefit of replicated field tests. In the F_8 generation an individual plant was selected and identified as 98731 in the F_9 progeny row. In 1971 this strain was placed in replicated field trials at Stoneville and has been continually tested through 1975 at Stoneville and by breeders throughout most of the cotton growing area.

During an early seed multiplication a mechanical seed mixture occurred in Stoneville 731N which resulted in about one plant in 700 having nectaries. The proportion has remained unchanged.

Plants carrying nectaries can be identified by the presence of nectaries on the mid-rib of the leaf, at the base of each bract and between the bracts and the calyx. In the breeding material used the removal of all nectaries is effected by the gene involved.

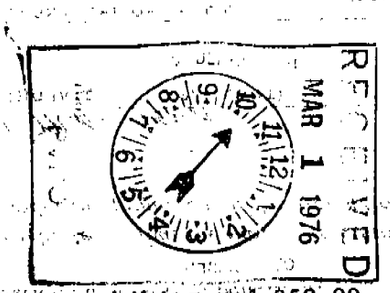
Since the F9 generation Stoneville 731N has been considered genetically stablized. Evidence of this is shown in the table below which compares the range of distribution among several traits of Stoneville 731N and Stoneville 7A, a variety of established agronomic acceptability. The data are taken from eight replicated field tests at Stoneville, Mississippi during the period 1971 to 1975.

Characteristic	Variety	
	Stoneville 731N	Stoneville 7A
Percent first harvest	62-83	45-75
Bolls per lb. of seed cotton	72-76	71-77
Lint percentage	36.7-21.7	36.7-20.7
Fiber strength, T_1	22.4-24.3	22.5-24.6
Fiber strength, T_o	84,000-94,000	85,000-94,000
Fiber length, 2.5% span	1.09-1.15	1.10-1.16
Fiber length uniformity	44-47	44-47
Fiber fineness, Micronaire	4.4-5.2	4.2-5.2

It will be noted that the range for each trait is no larger for Stoneville 731N than for Stoneville 7A except for fiber strength on the T_o scale.

There has been no evidence in the past five years that the occasional off-type plant which occurs in all cotton varieties is any more numerous in Stoneville 731N than in any variety released through sound breeding procedures.

FORM GR-470 (REVERSE)



INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety.

12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.

12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

EXHIBIT B

Botanical Description of the Variety

Stoneville 731N exhibits no special characteristics of the seed, seedling, fruit or flower except for the absence of nectaries usually located on the main vein of each leaf, on the outside and at the base of the involucral bracts and between the calyx and involucre.

In addition to the data supplied in Exhibit C. a more detailed description of Stoneville 731N may be obtained by making a direct comparison with Stoneville 7A.

Characteristic	Variety	
	Stoneville 731N	Stoneville 7A
Height of first fruiting branch, cm.	24	25
No. of nodes to first fruiting branch	6.4	6.4
Mature plant height, cm.	133	133
No. of locules per boll	4.4	4.1
Diameter of mature green boll, cm.	3.4	3.5
Width of mature leaf, cm.	16	16
No. of bract teeth	11.1	11.9
Maturity, percent first harvest	72	62
Lint percentage	39.8	39.0
Fiber strength, T_1	23.4	23.6
Fiber strength, T_o	90,600	91,500
Fiber length, 2.5% span	1.12	1.13
Fiber length uniformity	46	46
Fiber fineness, micronaire	4.7	4.5

These data compiled from the results of field tests at Stoneville, Mississippi during the period 1971 to 1975.

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FORM GR-470-8 (10-2-72)

FORM APPROVED. OMB NO. 40-R3713

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C (Cotton)

OBJECTIVE DESCRIPTION OF VARIETY

INSTRUCTIONS: *See Reverse.*

COTTON *(GOSSYPIUM SPP.)*

NAME OF APPLICANT(S)

Stoneville Pedigreed Seed Company

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*

P. O. Box 167
Stoneville, Mississippi 38776

FOR OFFICIAL USE ONLY

PVPO NUMBER 7600048

VARIETY NAME OR TEMPORARY DESIGNATION STONEVILLE 731N

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. SPECIES:

[1] 1 = GOSSYPIUM HIRSUTUM 2 = GOSSYPIUM BARBADENSE

2. AREA(S) OF ADAPTION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted):

[0] EASTERN [2] DELTA [2] CENTRAL [0] HIGH PLAINS [0] EL PASO AREA

[2] WESTERN LOW HOT VALLEYS [0] SAN JOAQUIN [ ] OTHER *(Specify)* _____

3. MATURITY (50% Open Boll):

[0][6] NO. OF DAYS *EARLIER* THAN ..... [3]

[ ][ ] NO. OF DAYS *LATER* THAN ..... [ ]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER *(Specify)* _____

4. PLANT HABIT:

[2] 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT

[3] 1 = FOLIAGE SPARSE 2 = DENSE 3 = OTHER *(Specify)* Intermediate

5. PLANT HEIGHT:

[0][1] CM. *SHORTER* THAN ..... [3]

[ ][ ] CM. *TALLER* THAN ..... [ ]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER *(Specify)* _____

6. MAIN STEM:

[2] 1 = LAX 2 = ASCENDING 3 = ERECT

[24] CM. TO FIRST FRUITING BRANCH

[0][6] NO. OF NODES TO FIRST FRUITING BRANC *(from cotyledonary node)*

7. LEAF:

[1][6] CM. WIDTH OF WIDEST LEAVES AT MATURITY

8. LEAF PUBESCENSE:

[3] 1 = GLABROUS (HAIRS AS SPARSE AS D_2 SMOOTH)
2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213)
4 = HEAVY PUBESCENCE (H_1 OR H_2) 5 = OTHER *(Specify)* _____

9. LEAF COLOR:

[2] 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN *(Acala-442)* 4 = RED
5 = OTHER *(Specify)* _____

10. LEAF TYPE:

[1] 1 = NORMAL 2 = OKRA 3 = SUPER OKRA 4 = OTHER *(Specify)* _____

11. FLOWER:

[1] 1 = NECTARILESS 2 = NECTARIED

[1] Petals: 1 = CREAM 2 = YELLOW [1] Pollen: 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE:

[3] 1 = CLUSTER 2 = SHORT 3 = NORMAL [2] 1 = DETERMINATE 2 = INDETERMINATE

13. GOSSYPOL CONDITION:

[3] 1 = GLANDLESS 2 = REDUCED GLANDS 3 = NORMAL GLANDS
4 = OTHER *(Specify)* _____

[1] 1 = NORMAL BUD GOSSYPOL 2 = HIGH BUD GOSSYPOL

14. SEEDS:

[1][2][4] ± [0][4] SEED INDEX *(Fuzzy seed basis)*

[2] Seed Fuzz: 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16)
3 = HEAVY (ACALA SJ-1) 4 = OTHER *(Specify)* _____

EXHIBIT D

Data Indicative of Novelty

Stoneville 731N most closely resembles Stoneville 7A in general field appearance and fiber properties and novelty is based on the fact that Stoneville 731N is nectariless and Stoneville 7A is nectaried.

There are no other nectariless varieties with which a comparison can be made.

EXHIBIT E

Statement of the Basis of Applicant's Ownership

The Stoneville Pedigreed Seed Company, Stoneville, Mississippi developed Stoneville 731N for which a certificate of protection is sought. The application has been signed by the Director of Research who is the actual breeder and who is acting solely as an employee of the company.

PV# 7600048 STONEVILLE 731

FORM GR-470-8 (REVERSE)

15. BOLLS:

[2] Locules: 1 = 3-4, 2 = 4-5 | [ ] NO. SEEDS PER BOLL | [3 9 8] LINT PERCENT | [3 4] MM. DIAMETER

[2] Pitted: 1 = NONE, 2 = FINELY, 3 = COURSELY | [6 1 3] GRAMS SEED COTTON PER BOLL | [2] Breadth: 1 = BROADER AT BASE, 2 = BROADER AT MIDDLE

[3] Type: 1 = STORMPROOF (WESTBURN 70), 2 = STORM RESISTANT (LANKART 57), 3 = OPEN (DELTAPINE 16) | [3] Shape: 1 = LENGTH < WIDTH, 2 = LENGTH = WIDTH, 3 = LENGTH > WIDTH

16. BRACTEOLES:

[3] Breadth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH

[1] Teeth: 1 = FINE 2 = COURSE | [4] Teeth: 1 = 3-4 2 = 5-7 3 = 8-10 4 = OTHER (Specify) 11-13

17. YIELD: Compared to—

[ ] PERCENT LESS THAN ..... [ ]

[0 2 0] PERCENT MORE THAN ..... [3]

1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
4 = PAYMASTER 111 5 = ACALA 1517-70
6 = ACALA SJ-1 7 = LANKART 57

18. FIBER LENGTH (Complete one or more of the following and give the means):

[ ] SPAN LENGTH 50% | [1 1 2] SPAN LENGTH 2.5% | [ ] U.H.M. LENGTH

[ ] MEAN LENGTH | [3 5] STAPLE LENGTH 32nd INCHES

[ ] UNIFORMITY RATIO (MEAN/U.H.M.) | [4 6] UNIFORMITY INDEX (50% SPAN/2.5% SPAN)

19. FIBER STRENGTH AND ELONGATION:

[0 9 1] 1,000 P.S.I. | [ ] ELONGATION E_1 | [ ] STILOMETER T_0

[4 7 0] MICRONAIRE READING | [ ] YARN STRENGTH (Give test method) | [2 2 2] STILOMETER T_1

20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[2] VERTICILLIUM WILT	[1] FUSARIUM WILT	[0] ROOT KNOT NEMATODE	[0] BACTERIAL BLIGHT (Race 1)
[0] BACTERIAL BLIGHT (Race 2)	[0] ASCOCHYTA BLIGHT	[0] PHYMATOTRICHUM ROOT ROT	[0] RHIZOCTONIA
[0] ANTHRACNOSE	[0] RUST	[ ] OTHER (Specify)	

21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[1] BOLL WEEVIL	[0] APHID	[2] FLEAHOPPER	[0] LEAFWORM
[0] FALL ARMYWORM	[0] GRASSHOPPER	[2] LYGUS	[2] PINK BOLLWORM
[0] STINKBUG	[0] THRIP	[0] CUTWORM	[0] SPIDERMITE

[ ] OTHER (Specify)

REFERENCES: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.

(2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.

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U.S. DEPARTMENT OF AGRICULTURE

REFERENCE SLIP

DATE 11/19/76

TO B. [illegible]

- [x] ACTION
- [x] APPROVAL
- [ ] AS REQUESTED
- [ ] FOR COMMENT
- [ ] FOR INFORMATION
- [ ] INITIALS
- [ ] NOTE AND FILE
- [ ] NOTE AND RETURN
- [ ] PER PHONE CALL
- [ ] RECOMMENDATION
- [ ] REPLY FOR SIGNATURE OF
- [ ] RETURNED
- [ ] SEE ME
- [ ] YOUR SIGNATURE

REMARKS Cotton Application
7600048
"Stoneville 731 N"
Ready for Certificate

FROM [illegible]

GPO : 1964 OF—742-059 FORM **AD-514** (8-64)

COTT

PV No. 76-48
GH-1604

An excess seed sample of this variety was returned to the PVP Office by the National Seed Storage Laboratory. The excess seed was destroyed by PVPO personnel on NOV 14 1994.